PYTHON CODING

```python
# Hotel Management System

import csv
# Define global variables
hotel_fields = ['ID', 'Name', 'Age','Address','Country', 'Email', 'Phone','Checkin date','Checkout date','Room number','Room rent','Resturent bill','Laundry bill','Gaming bill','Total bill']
hotel_database = 'hotelrecord.csv'


def add_Customer():
  print("-------------------------")
  print("Add Customer Information")
  print("-------------------------")
  global hotel_fields
  global hotel_database

  Customer_data = []
  for i in range(9):
    value = input("Enter " + hotel_fields[i] + ": ")
    Customer_data.append(value)

  print ("\n ***** We have The Following Rooms For You *****")
  print (" 1. Ultra Royal -----> 10000 Rs.")
  print (" 2. Royal -----> 5000 Rs. ")
  print (" 3. Elite -----> 3500 Rs. ")
  print (" 4. Budget -----> 2500 USD \n")

  roomchoice=int(input("Enter Your Choice Please->"))
  noofdays=int(input("For How Many Nights Did You Stay:"))
  roomno=int(input("Enter Customer Room No : "))
  Customer_data.append(roomno)

  if roomchoice==1:
    roomrent = noofdays * 10000
    print("\nUltra Royal Room Rent : ",roomrent)
  elif roomchoice==2:
    roomrent = noofdays * 5000
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      print("\nRoyal Room Rent : ",roomrent)
    elif roomchoice==3:
      roomrent = noofdays * 3500
      print("\nElite Royal Room Rent : ",roomrent)
    elif roomchoice==4:
      roomrent = noofdays * 2500
      print("\nBudget Room Rent : ",roomrent)
    else:
      print("Sorry ,May Be You Are Giving Me Wrong Input, Please
Try Again !!! ")
      return

    dt=[0,0,0,roomrent]
    Customer_data.append(roomrent)
    Customer_data=Customer_data+dt

    with open(hotel_database, "a", encoding="utf-8") as f:
      writer = csv.writer(f)
      writer.writerows([Customer_data])

    print("\nData saved successfully")
    input("\nPress any key to continue")
    return


def restaurentbill():
  ID=int(input("Enter your ID:"))

  print("\n*****RESTAURANT MENU*****\n")

  print("""1.water----->Rs20 \n2.tea----->Rs10 \n3.breakfast c
ombo--->Rs90 \n4.lunch---->Rs110 \n5.dinner--->Rs150 \n6.Exit\
n""")

  choice=int(input("Enter your choice:"))
  quantity=int(input("Enter the quantity:"))

  if (choice==1):
    rtbill = quantity * 20

  elif (choice==2):
    rtbill = quantity * 10

  elif (choice==3):
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        rtbill = quantity * 90

    elif (choice==4):
        rtbill = quantity * 110

    elif (choice==5):
        rtbill = quantity * 150

    elif (choice==6):
        return

    else:
        print("Invalid option")
        return

    print ("Total Food Cost=Rs",rtbill,"\n")

    with open(hotel_database, "r", encoding="utf-8") as f:
        reader = csv.reader(f)
        data =[]
        for i in reader:
            if len(i) > 1:
                if i[0] == str(ID):
                    i[11] = eval(i[11]) + rtbill
                    i[14] = eval(i[14]) + rtbill
                    data.append(i)
                else:
                    data.append(i)
    with open(hotel_database, "w", encoding="utf-8") as f:
        writer = csv.writer(f)
        writer.writerows(data)

    input('\nPress any key to continue')
    return


def gamingbill():
    ID=int(input("Enter your ID:"))

    print ("\n******GAME MENU*******\n")

    print("""1. Table Tennis -----> 150 Rs./HR \n2. Bowling ----
-> 100 Rs./HR \n3. Snooker -----> 250 Rs./HR \n4. VR World Gam
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ing -----> 400 Rs./HR \n5. Video Games -----> 300 Rs./HR \n6.
Swimming Pool Games ----->  350 Rs./HR \n7. Exit\n""")

    game=int(input("Enter What Game You Want To Play : "))
    hour=int(input("Enter No Of Hours You Want To Play : "))
    print("\n\
n********************************************\n")

    if game==1:
        print("YOU HAVE SELECTED TO PLAY : Table Tennis")
        gamingbill = hour * 150
    elif game==2:
        print("YOU HAVE SELECTED TO PLAY : Bowling")
        gamingbill = hour * 100
    elif game==3:
        print("YOU HAVE SELECTED TO PLAY : Snooker")
        gamingbill = hour * 250
    elif game==4:
        print("YOU HAVE SELECTED TO PLAY : VR World Gaming")
        gamingbill = hour * 400
    elif game==5:
        print("YOU HAVE SELECTED TO PLAY : Video Games")
        gamingbill = hour * 300
    elif game ==6:
        print("YOU HAVE SELECTED TO PLAY : Swimming Pool Games")
    elif game ==7:
        return
    else:
        print('Invalid Input')
        return

    print ("Your Total Gaming Bill=Rs",gamingbill,"\n")

    with open(hotel_database, "r", encoding="utf-8") as f:
        reader = csv.reader(f)
        data =[]
        for i in reader:
            if len(i) > 1:
                if i[0] == str(ID):
                    i[13] = eval(i[13]) + gamingbill
                    i[14] = eval(i[14]) + gamingbill
                    data.append(i)
                else:
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        data.append(i)
  with open(hotel_database, "w", encoding="utf-8") as f:
    writer = csv.writer(f)
    writer.writerows(data)

  input('\nPress any key to continue')
  return


def laundrybill():
  ID = input('Enter Customer ID : ')
  print ("\n******LAUNDRY MENU*******\n")

  print ("1.Shorts----->Rs3 \n2.Trousers----->Rs4 \n3.Shirt---
>Rs5 \n4.Jeans---->Rs6 \n5.Girlsuit--->Rs8 \n6.Exit\n")

  laundary=int(input("Enter your choice:"))
  quantity=int(input("Enter the quantity:"))

  if (laundary==1):
    launbill = laundary * quantity

  elif (laundary==2):
    launbill = laundary * quantity

  elif (laundary==3):
    launbill = laundary * quantity

  elif (laundary==4):
    launbill = laundary * quantity

  elif (laundary==5):
    launbill = laundary * quantity

  elif (laundary==6):
    return

  else:
    print ("Invalid option")
    return

  print ("Your Total Laundry Bill=Rs",launbill,"\n")

  with open(hotel_database, "r", encoding="utf-8") as f:
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        reader = csv.reader(f)
        data =[]
        for i in reader:
          if len(i) > 1:
            if i[0] == str(ID):
              i[12] = eval(i[12]) + launbill
              i[14] = eval(i[14]) + launbill
              data.append(i)
            else:
              data.append(i)
    with open(hotel_database, "w", encoding="utf-8") as f:
      writer = csv.writer(f)
      writer.writerows(data)

    input('\nPress any key to continue')
    return


def search():
  Name = input('Enter Customer Name You Want To Search: ')
  with open(hotel_database, "r", encoding="utf-8") as f:
    reader = csv.reader(f)
    count = 0
    data =[]
    for i in reader:
      if len(i) > 1:
        if i[1].lower() == Name.lower():
          print(i[0:7])
          count = count + 1
    if count == 0:
      print('No Customer Data Found!')

  input('\nPress any key to continue')


def totalbill():
  global hotel_database
  global hotel_fields
  ID = input('Enter Customer ID : ')
  print ("\n******HOTEL BILL******")
  with open('hotelrecord.csv', "r", encoding="utf-8") as f:
    reader = csv.reader(f)
    data =[]
    for i in reader:
```

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            if len(i) > 1:
                if i[0] == str(ID):
                    for j in range(0,15):
                        print('\nCustomer',hotel_fields[j],'  :',i[j])

    input('\nPress any key to continue')
    return


while(True):
    print("""
1 -->Enter Customer Details
2 -->Calculate Restaurant Bill
3--->Calculate Laundry Bill
4--->Calculate Game Bill
5--->Search Customer
6--->GENERATE TOTAL BILL AMOUNT
7--->EXIT    """)
    choice = int(input("Enter Your Choice : "))
    if choice == 1:
        add_Customer()
    elif choice ==2:
        restaurentbill()
    elif choice == 3:
        laundrybill()
    elif choice ==4:
        gamingbill()
    elif choice ==5:
        search()
    elif choice ==6:
        totalbill()
    elif choice ==7:
        print("-------------------------------")
        print(" Thank you for using our system")
        print("-------------------------------")
        break
```

OUTPUT

Enter Customer Details

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Type "help", "copyright", "credits" or "license()" for mor
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1--->Enter Customer Details
2--->Calculate Restaurant Bill
3--->Calculate Laundry Bill
4--->Calculate Game Bill
5--->Search Customer
6--->GENERATE TOTAL BILL AMOUNT
7--->EXIT
Enter Your Choice : 1
------------------------
Add Customer Information
------------------------
Enter ID: 101
Enter Name: Akash Chaudhary
Enter Age: 23
Enter Address: Basti,Uttar Pradesh
Enter Country: India
Enter Email: akashchaudhary@gmail.com
Enter Phone: 9638527410
Enter Checkin date: 07/04/2021
Enter Checkout date: 12/04/2021

 ***** We have The Following Rooms For You *****
 1. Ultra Royal -----> 10000 Rs.
 2. Royal -----> 5000 Rs.
 3. Elite -----> 3500 Rs.
 4. Budget -----> 2500 USD

Enter Your Choice Please: 1
For How Many Nights Did You Stay:5
Enter Customer Room No: 111

Ultra Royal Room Rent :  50000

Data saved successfully

Press any key to continue
```

Calculate Restaurant Bill

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>>>
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1--->Enter Customer Details
2--->Calculate Restaurant Bill
3--->Calculate Laundry Bill
4--->Calculate Game Bill
5--->Search Customer
6--->GENERATE TOTAL BILL AMOUNT
7--->EXIT
Enter Your Choice : 2
Enter your ID:101

*****RESTAURANT MENU*****

1.water----->Rs20
2.tea----->Rs10
3.breakfast combo--->Rs90
4.lunch---->Rs110
5.dinner--->Rs150
6.Exit

Enter your choice:5
Enter the quantity:1
Total Food Cost=Rs 150


Press any key to continue
```

Calculate Laundry Bill

```
*IDLE Shell 3.9.2*
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Python 3.9.2 (tags/v3.9.2:1a79785, Feb 19 2021, 13:44:5
Type "help", "copyright", "credits" or "license()" for
>>>
===== RESTART: C:\Users\asus\AppData\Local\Programs\Pyt

1--->Enter Customer Details
2--->Calculate Restaurant Bill
3--->Calculate Laundry Bill
4--->Calculate Game Bill
5--->Search Customer
6--->GENERATE TOTAL BILL AMOUNT
7--->EXIT
Enter Your Choice : 3
Enter Customer ID : 101

******LAUNDRY MENU*******

1.Shorts----->Rs3
2.Trousers----->Rs4
3.Shirt--->Rs5
4.Jeans---->Rs6
5.Girlsuit--->Rs8
6.Exit

Enter your choice:2
Enter the quantity:2
Your Total Laundry Bill=Rs 4


Press any key to continue
```

Calculate Game Bill

```
IDLE Shell 3.9.2

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Type "help", "copyright", "credits" or "license()"
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1--->Enter Customer Details
2--->Calculate Restaurant Bill
3--->Calculate Laundry Bill
4--->Calculate Game Bill
5--->Search Customer
6--->GENERATE TOTAL BILL AMOUNT
7--->EXIT
Enter Your Choice : 4
Enter your ID:101

******GAME MENU*******

1. Table Tennis -----> 150 Rs./HR
2. Bowling -----> 100 Rs./HR
3. Snooker -----> 250 Rs./HR
4. VR World Gaming -----> 400 Rs./HR
5. Video Games -----> 300 Rs./HR
6. Swimming Pool Games ----->  350 Rs./HR
7. Exit

Enter What Game You Want To Play : 4
Enter No Of Hours You Want To Play : 2


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YOU HAVE SELECTED TO PLAY : VR World Gaming
Your Total Gaming Bill=Rs 800


Press any key to continue
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Search Customer

```
*IDLE Shell 3.9.2*                                      —    □    ✕

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928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more inform
ation.
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9\HMS.py =====

1--->Enter Customer Details
2--->Calculate Restaurant Bill
3--->Calculate Laundry Bill
4--->Calculate Game Bill
5--->Search Customer
6--->GENERATE TOTAL BILL AMOUNT
7--->EXIT
Enter Your Choice : 5
Enter Customer Name You Want To Search: akash chaudhary
['101', 'Akash Chaudhary', '23', 'Basti, Uttar Pradesh', 'India',
'akashchaudhary@gmail.com', '7598461230']

Press any key to continue
```

Generate Total Bill Amount

```
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Type "help", "copyright", "credits" or "license()" for more info
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1--->Enter Customer Details
2--->Calculate Restaurant Bill
3--->Calculate Laundry Bill
4--->Calculate Game Bill
5--->Search Customer
6--->GENERATE TOTAL BILL AMOUNT
7--->EXIT
Enter Your Choice : 6
Enter Customer ID : 101


******HOTEL BILL******

Customer ID    : 101

Customer Name    : Akash Chaudhary

Customer Age    : 23

Customer Address    : Basti, Uttar Pradesh

Customer Country    : India

Customer Email    : akashchaudhary@gmail.com

Customer Phone    : 7598461230

Customer Checkin date    : 07/04/2021

Customer Checkout date    : 12/04/2021

Customer Room number    : 111

Customer Room rent    : 50000

Customer Resturent bill    : 150

Customer Laundry bill    : 4

Customer Gaming bill    : 800

Customer Total bill    : 50954

Press any key to continue
```

Exit

```
IDLE Shell 3.9.2
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Python 3.9.2 (tags/v3.9.2:1a79785, Feb 19 2021, 13:
Type "help", "copyright", "credits" or "license()"
>>>
==== RESTART: C:\Users\asus\AppData\Local\Programs

1--->Enter Customer Details
2--->Calculate Restaurant Bill
3--->Calculate Laundry Bill
4--->Calculate Game Bill
5--->Search Customer
6--->GENERATE TOTAL BILL AMOUNT
7--->EXIT
Enter Your Choice : 7
-------------------------------
 Thank you for using our system
-------------------------------
>>>
```